

MAGNETIC IMPEDANCE HEAD MODULE

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Abstract

PROBLEM TO BE SOLVED: To provide a small and reliable magnetic impedance head module exhibiting excellent sensitivity characteristics in the detection of a subtle micro magnetic field at a low cost.

SOLUTION: Thickness of a coating 24 covering a thin film MI element 15A is set at 100 μm or less, the surface part 30a of the coating 24 faces an article 3 to be measured and the corner parts and side parts of the surface part 30a are rounded 35. The module touches the article 3 smoothly to ensure smooth movement thereof thus ensuring good detection while enhancing reliability. A thin film negative feedback coil 12 and a thin film bias coil 13 are wound around a thin film magnetic core 14 to constitute the thin film MI element 15A which can reduce the size.

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